

**REMARKS**

Claims 1-20 are pending. Reconsideration of the application in light of the following remarks is respectfully requested.

**I. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. § 103(a)**

Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicants' admitted prior art and U.S. Patent No. 6,468,362 (Chen et al.). Withdrawal of the rejection is again respectfully requested for at least the following reasons.

- i. *Chen et al. teach a formation of a layer of surfactant on a surface of the wafer prior to a rinsing of the wafer with DI water in order to avoid water marks on the wafer surface, wherein the surfactant layer acts to shield the wafer surface from the DI water.*

Chen et al. teach the utilization of the surfactant as an aid to avoid water marks on the surface of a wafer. Chen et al. accomplish this by *forming a layer of surfactant on a surface of the wafer, therein preventing a pure DI water rinse from directly contacting the hydrophobic surface of the wafer* (see, e.g., Chen et al. col. 3, lines 12-23). Accordingly, the surfactant acts as a shield to prevent the DI water rinse from contacting the surface of the wafer. Insofar as Chen et al. teach a full or partial removal of the surfactant from the surface of the wafer, it should be noted that such *full or partial removal of the layer of surfactant* occurs at the surface of the wafer, *thus either fully removing the layer of surfactant or leaving a partial layer of surfactant on the surface of the wafer*. If such a layer of surfactant were to be partially left on the surface of the wafer, Applicants believe that *such a layer of surfactant would disadvantageously prevent a second etching of the wafer*, or at least cause non-uniformities in the second etching of the wafer. Since the surfactant of Chen et al. takes the form of a layer of surfactant on the surface of the wafer, the layer of surfactant must, somehow, be etched through, and Chen et al. are silent regarding such an etch.

Furthermore, Chen et al. fail to teach or suggest an addition of a surfactant to a second etchant *if the layer of surfactant on the surface of the wafer of Chen et al. is fully removed*. Accordingly, no reduction of surface tension in the second etchant would be provided, as presently claimed.

Again, it is clear from the teachings of Chen et al. that the surfactant layer provides the desired advantage of *limiting water marks from forming on the surfaces of the hydrophobic wafer during rinsing and drying of the wafer*. Since Chen et al. teach the use of the surfactant layer merely as an aid in the rinsing and drying the wafer and in preventing water marks, and that a partially removed layer of surfactant would appear to deleteriously affect a subsequent etching of the wafer, one of ordinary skill in the art would not have been motivated to combine the teachings of Chen et al. with Applicants' admitted prior art.

Accordingly, independent claims 1-20 are non-obvious over the cited art, and withdrawal of the rejection of claims 1-20 is respectfully requested.

## **II. CONCLUSION**

The claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, MAIKP131US.

Respectfully submitted,  
ESCHWEILER & ASSOCIATES, LLC

By \_\_\_\_\_/Thomas G. Eschweiler/

Thomas G. Eschweiler  
Reg. No. 36,981

National City Bank Building  
629 Euclid Avenue, Suite 1000  
Cleveland, Ohio 44114  
(216) 502-0600